



May 5, 2022

Jared Ebert
Division of Reclamation, Mining and Safety
1313 Sherman St., Rm. 215
Denver, Colorado 80203

Re: New Elk Mine
Permit C-1981-012
PR-5 Adequacy Response

Dear Mr. Ebert

New Elk Coal Company has the below responses to the previously submitted PR-5 Adequacy Review.

Sincerely,

Nicholas Mason
Mine Engineer

Rule 2.03.4 – Identification of Interests

1. The Coal Regulations were recently revised in 2020. Included with this revision was Section 2.03.4. Please revise the Permit Application Package (PAP) section 2.03.4 to comply with the revised rules.
 - a. **NECC Response:** Section 2.03.4 has been updated to comply with the revised rules.
 - b. **DRMS Response:** This section was not revised to comply with the requirements or formatting of the rule.
 - i. Per Rule 2.03.4(2)(b) please provides the name, address, telephone number and taxpayer identification number of any operator, if different from the applicant.

NECC Response: Section 2.03.4 has been updated to comply with the revised rules.

- ii. Per Rule 2.03.4(2)(c) please provides the name, address, telephone number and taxpayer identification number of applicants resident agent.

NECC Response: Section 2.03.4 has been updated to comply with the revised rules.

- iii. Per Rule 2.03.4(2)(d) please provides the name, address, telephone number and taxpayer identification number of each business entity in the applicant's and operator's organizational structure, up to and including the ultimate parent entity of the applicant and operator; for every such business entity, the application shall also include the required information for every president, chief executive officer, and director (or other persons in similar positions) and every person who owns, of record, 10 percent or more of the entity.

NECC Response: Section 2.03.4 has been updated to comply with the revised rules.



- iv. NECC section 2.03.4(3)(a-c) does not reflect the required information/organization of Rule 2.03.4(3). Please revised section 2.03.4(3) of the permit to provide the information required under this respective rule.

NECC Response: Section 2.03.4 has been updated to comply with the revised rules.

- v. On page 4 of revised section 2.03, two subsections (2)(d) and (2)(e) are out of place and do not correspond to Rule 2.03.4(3). Please address this discrepancy.

NECC Response: Section 2.03.4 has been updated to comply with the revised rules.

- vi. Please revise section 2.03.4(4) to be organized with the revised rule organization. Subsection (1) of the revised submittal does not make sense. Subsection (2)(b) and (2)(c) of the application indicates that Louis Head is the general manager, registered agent, and person responsible for paying the abandoned mine land reclamation fee for NECC; DRMS was informed that Louis Head is no longer employed with NECC.

NECC Response: Section 2.03.4 has been updated to comply with the revised rules. The revisions to Section 2.03.4 have removed Louis Head.

- vii. Revised section 2.03.4(5) is not reflective of the associated rule. Please revise accordingly.

NECC Response: Section 2.03.4 has been updated to comply with the revised rules.

- 5. The date, PE#, and signature of the person who prepared the Maps 1, 2, 3, is missing or not provided. Please submit updated maps with this information.

- a. **NECC Response:** Maps 1, 2, and 3 have been updated to include the required PE information.
- b. **DRMS Response:** This item was not addressed by NECC. The maps submitted on October 11, 2021 did not include this information.

NECC Response: Maps have been certified by a qualified registered professional engineer or professional geologist.

- 6. Based on Allegiance Coal's website, Amon Mahon is a Director of New Elk Coal Company, LLC and Chief Operating Officer. Amon Mahon was not included in the list of Officers and Directors. Please clarify this discrepancy. Please add Amon Mahon to the list of Officers and Directors if necessary.
 - a. **NECC Response:** NECC is going to rearrange Officers and Directors. Amon will be moving to a different project at the beginning of October, if he can remain until October that would be ideal, as long as that does not affect the permit revision.
 - b. **DRMS Response:** Are Amon Mahon and William Larry Cook still officers within the owner and controller hierarchy? If so, they need to be included in the appropriate permit sections for Rule 2.03. If not, please provide documentation, such as board meeting minutes, that these parties are no longer officers within the hierarchy of the NECC and their owners and controllers.

NECC Response: Section 2.03.4 has been updated to comply with the revised rules. With the updates both Amon and Larry have been removed from this section.

Rule 2.03.5 – Compliance Information

- 9. DRMS conducted an Applicant/Violator System (AVS) check based on the current information and revised information submitted for section 2.03.4 of the permit. Also, Amon Mahon identified as a Director of New Elk Coal Company, LLC on Allegiance Coal's website was included in this check. Attached are Evaluation Reports from AVS. Violations and cessation orders were found for Larry Cook and Amon Mahon. A bond forfeiture was noted for Amon Mahon. Please address each of these items listed in the Evaluation Reports

and supply the information required by Rule 2.03.5(1)(c). Please note in accordance with Rule 2.07.6(1)(b) that the Division shall not issue the permit if any surface coal mining and reclamation operation that is directly owned or controlled by the applicant and has a unabated or uncorrected violations; or is indirectly controlled by the applicant or operator and has an unabated or uncorrected violations and that control was established or the violations were cited after November 2, 1988.

- a. **NECC Response:** See above for item 6. NECC is going to rearrange the officers and directors.
- b. **DRMS Response:** Please respond to item #6b above for both Amon Mahon and William Larry Cook. Per NECC response, these officers are “rearranged;” however if they are still officers of the applicant or the owners and controllers of the applicant then the requirements of Rule 2.03.5(1) must be addressed.

NECC Response: Section 2.03.5 has been updated to comply with the revised rules. With the updates both Amon and Larry have been removed from this section. The website has been updated as well.

Rule 2.03.6 – Right of Entry Information

12. It is difficult to verify which documents included in proposed Exhibit 34 is the basis for the applicant’s legal right to enter and begin operations. Pursuant to Rule 2.03.6(1), please update Section 2.03.6 of the permit to provide a list of the documents upon which the applicant bases their legal right to enter. This list shall identify those documents by type and date of execution, and identify lands to which they pertain, and an explanation of the legal rights claimed by the applicant in accordance with Rule 2.03.6(1).
 - a. **NECC Response:** Section 2.03.6 of the PAP has been updated to list the information requested in this comment.
 - b. **DRMS Response:** The revised section 2.03.6 does not address the adequacy review item. This item remains outstanding.

NECC Response: Section 2.03.6 of the PAP has been updated with a list of documents that show right of entry to the PR5 expansion area and the lease document is contained in Exhibit 34.

Rule 2.04.3 – General Requirements: Site Description and Land Use information:

13. The current approved permit area for the New Elk Mine is 4,201.90 acres with the approval of TR72, and PR5 seeks to increase the permit area by 2,856 acres for a total permit area of 7,057.9 acres. Please revise the narrative of proposed revised page 1 of permit section 2.04.3 to reflect this. Also please update Table 5 on page 1 and proposed page 1a to reflect this.
 - a. **NECC Response:** Revised pages of the PAP have been updated with acreages of the current permit and lands added for PR5.
 - b. **DRMS Response:** There is still a minor discrepancy in the changes in the permit area proposed with PR5 discussed on revised page 2.04-1a and what was applied for on the PR5 application form. Please revise the page 2.04-1a to reflect what was requested on the PR5 application form.

NECC Response: Page 2.04-1a has been revised to reflect what was requested on the PR5 application form.

14. The current approved disturbance area for the New Elk Mine is 227.8 acres with the approval of TR72 and TR74, and PR5 does not seek any additional disturbed acreage. Please revise the narrative of proposed revised page 1 of permit section 2.04.3 to reflect this. Also, please update Table 5 on page 1 and proposed page 1a to reflect this.

- a. **NECC Response:** Pages 1 and 1a of section 2.04.3 have been updated to reflect the current disturbed area.
- b. **DRMS Response:** NECC submitted two revised pages associated with this response, both are paginated as 2.04-1a. Please revise the pagination so these pages are different and flow logically with the existing permit text.

NECC Response: The pagination of pages has been revised to flow logically with the existing permit text.

- c. **DRMS Response:** NECC revised Table 4 now included on proposed revised page 2.04-1a. This table is supposed to list the approximate acreages of land uses to be affected or disturbed. Revised Table 4 does not make sense, it appears there are now two tables proposed, one for the Pre-PR5 area and a second for the Post PR-5 area. Based on the second part of the table, NECC now shows there is no disturbed area in any of the identified land use areas and the permit area associated with each land use is not consistent. Please review this table and update the information as necessary. Please list the acreages of the permit area associated with each land use, the number of disturbed acres associated with each land use, and the number of affected acres associated with each land use. Please consider the definitions of “affected area” and “disturbed area” as defined by Rules 1.04(7) and (36).

NECC Response: Table 4 has been revised to show permit area acreage with each land use, disturbed area, and number of affected acres related to the Blue Seam.

Rule 2.04.4 – Cultural and Historic Resource Information

15. On August 6, 2021, DRMS received the enclosed undated letter from History Colorado, from the State Historic Preservation Officer (SHPO). They requested additional information from DRMS regarding PR5 which we have provided to them. Also, the SHPO recommended that a class III cultural resource inventory be completed prior to construction activities to determine the presence of cultural resources in the area of potential effect and to assess the eligibility of any resources for the National Register of Historic Places (NRHP). Rule 2.04.4 requires such an analysis for areas potentially impacted by surface activities or probable subsidence. Given this, DRMS sought clarification on SHPO’s recommendation since no new surface disturbance is proposed with PR5 and since subsidence is not anticipated given the proposed mining method. SHPO responded to DRMS with the enclosed correspondence dated August 20, 2021. Upon review of Section 2.05.6 of the PAP and Exhibit 24, the current mine plan and subsidence control plan anticipates multi-seam mining and planned subsidence from retreat mining in certain circumstances. Please see the adequacy review questions under the section for Rule 2.05.6 below. Either provide the results of the class III cultural resource survey and update Section 2.04.4 accordingly, or provide a detailed rationale for not providing this information.
 - a. **NECC Response:** Section 2.05.6 has been revised to include mining method and extraction of coal. With room and pillar mining and no proposed secondary mining, subsidence will not occur. As a result, NECC requests that a class III cultural resource inventory of the PR5 not be required.
 - b. **DRMS Response:** The Division did not receive a revised section 2.05.6(6) subsidence survey, monitoring, and control plan. Please submit a revised section as indicated above and ensure that if no subsidence is anticipated that an analysis is included that supports this conclusion and justification for not providing a cultural resource survey. Simply stating that subsidence will not occur is not sufficient, please see section 2.05.6(6) for details. Please revise page 2.04-8 as necessary to comply with Rule 2.04.4 regarding the proposed PR5 expansion and increase in affected area.

NECC Response: NECC has completed an Analysis of Multiple Seam Stress Distribution and Pillar Stability study (included in Exhibit 24_3). Page 2.04-8 has been revised to reflect the conclusion of the analysis that subsidence should not occur and that NECC has not conducted an intensive cultural resource survey of the PR-5 area.

- c. **DRMS Response #2:** NECC Submitted a revised Exhibit 7 – Archaeological Information, the cover page indicates a letter from the SHPO dated August 6, 2021 and an email from the SHPO dated August 20, 2021 was to be included in the Exhibit. However these documents were not included in revised Exhibit 7, please submit the documents.

NECC Response: The two documents referenced in the comment are attached for inclusion in Exhibit 7.

Rule 2.04.5 – General Description of Hydrology and Geology

16. Please revise Map 5 and 6 to depict the revised permit boundary.

- a. **NECC Response:** Maps 5 and 6 have been revised to include the permit boundary.
- b. **DRMS Response:** The revised maps must be certified by a qualified registered professional engineer or professional geologist, with assistance from experts in related fields such as land surveying and landscape architecture in accordance with Rule 2.10.3(2). Please revise the maps accordingly to include this certification.

NECC Response: Maps have been certified by a qualified registered professional engineer or professional geologist.

17. Map 7 includes geologic cross sections, however the A-A' cross section does not extend into the proposed PR5 expansion area fully to the northeast. Please update Map 7 to take the expanded permit area and affected area into account.

- a. **NECC Response:** Map 7 of the PAP has been updated to include the expanded permit area.
- b. **DRMS Response:** The revised map must be certified by a qualified registered professional engineer or professional geologist, with assistance from experts in related fields such as land surveying and landscape architecture in accordance with Rule 2.10.3(2). Please revise the maps accordingly to include this certification.

NECC Response: Maps have been certified by a qualified registered professional engineer or professional geologist.

18. Current page 2.04-11e states core holes were drilled in 2020 and 2010 however it does not indicate where in the permit the drill logs for these holes are located. Please revise this section of the permit to indicate where these drill logs can be found in the permit and please provide this information as an exhibit to the permit in accordance with Rule 2.04.6(3)(a)(iii)(A).

- a. **NECC Response:** The 2010 drilling logs are found Exhibit 41(confidential) of the PAP. Once the information for the 2021 drilling has been completed and compiled, NECC will send in a revision adding the drill logs to Exhibit 41.
- b. **DRMS Response:** Please revise page 2.04-11e to indicate the drill logs are located in confidential Exhibit 41.

NECC Response: Page 2.04-11e has been revised to indicate the drill logs are located in the confidential Exhibit 41 and also added that eight core holes are proposed to be drilled within the permit boundary in 2020, six of the proposed drill holes were drilled in 2021.

Please note that NECC completed drilling in 2021 and this work has not been fully completed or analyzed. NECC will add the information to Exhibit 41 once completed and provide this to CDRMS once complete.

Rule 2.04.7 – Hydrology Description

20. The legend of Map 8 does not appear to be reflective of the various lines and symbols used on the map. For example the revised PR5 permit boundary appears to be a thick green line not an orange-yellow dashed line as the legend indicates. Also there is a red dashed line that appears to delineate the pre-PR5 boundary. Please revise the map so it features are accurately portrayed in the legend.

- a. **NECC Response:** The legend and information of Map 8 have been to be consistent with each other.
- b. **DRMS Response:** The revised map must be certified by a qualified registered professional engineer or professional geologist, with assistance from experts in related fields such as land surveying and landscape architecture in accordance with Rule 2.10.3(2). Please revise the maps accordingly to include this certification.

NECC Response: Maps have been certified by a qualified registered professional engineer or professional geologist.

- c. **DRMS Response:** Map 8 depicts many features and items referenced throughout the Permit Application package. Many of the features and labels overlap and it is difficult to find the location of specific features such as the approved surface and groundwater monitoring points. DRMS recommends NECC submit several series of Map 8 so critical features can be easily identified.

NECC Response: Map 8 has been revised and broken out into several series to make it easier to read.

DRMS (Simmons) Comment: Minimal revisions have been proposed to section 2.04.7 of the PAP, however a complete description of the hydrology in the area of the mine is necessary before the consequences of mining can be assessed. It is clear at a cursory review that parts of section 2.04.7 are out of date (for example, Table 10 presents a groundwater user inventory, but the Colorado Division of Water Resources database contains many records of wells that have presumably not been included in the inventory, as is shown in Figure 1).

- a. **DRMS (Simmons) Response:** Please review section 2.04.7 of the PAP and update it as necessary given the expansion to the permit area proposed with PR-5.

NECC Response: Table 10 has been updated based on Colorado Division of Water Resources database search and Exhibit 11 has been updated with all the permitting documents. Map 8 has also been updated with new wells along with creating a map series (Map 8a through Map 8d) showing four detailed areas at a scale of 1" = 800' so it's easier to identify features.

DRMS (Simmons) Comment: "Section 2.04.7 refers to Map 8, Regional Hydrology. The proposed revision to Map 8 is a scanned image of the currently approved Map 8, dated May 10, 2012, with the proposed permit boundary overlaid on it. The data on the map has not been updated."

- a. **DRMS (Simmons) Response:** Please revise Map 8. Please update all data layers and all metadata on the map, in accordance with the requirements of Rule 2.10.

NECC Response: Map 8 has been updated with new wells along with creating a map series (Map 8a through Map 8d) showing four detailed areas at a scale of 1" = 800' so it's easier to identify features.

Rule 2.05.3 – Operation Plan – Permit Area

33. Current page 4 of the PAP of section 2.05.3(1) indicates the mine is not currently active. As production at

the site has now been initiated please revise page 4 of this section accordingly.

- a. **NECC Response:** Page 4 of the PAP of section 2.05.3(1) has been updated to show the mine is currently active.
- b. **DRMS Response:** DRMS did not receive a copy of revised Page 4. This item remains outstanding.

NECC Response: Page 4 of the PAP of section 2.05.3(1) has been updated to show the mine is currently active. Text has also been updated.

34. Proposed revised page 10 indicates the Golden Eagle Fan site's location is depicted on Map 3 and the surface disturbance boundary is indicated on Figure 2c. The Division could not locate this feature on the proposed revised Map 3 and the disturbance boundary is not depicted on Figure 2c. Please revise Map 3 and Figure 2c accordingly.

- a. **NECC Response:** Map 3 and Map 11B added have been updated with information regarding the Golden Eagle Fan site.
- b. **DRMS Response:** Revised page 10 indicates the disturbance boundary for each of the shafts (Apache #1 and #2, Golden Eagle) is shown on Map 11B. The disturbance boundary for the Apache Air Shafts #1 and #2 are shown on Map 11A. Please revise page 10 accordingly.

NECC Response: Page 10 of the PAP has been revised to indicate that the disturbance boundary for the Apache Air Shafts #1 and #2 are shown on Map 11A.

- c. **DRMS Response:** Map 11B must be certified by a qualified registered professional engineer or professional geologist, with assistance from experts in related fields such as land surveying and landscape architecture in accordance with Rule 2.10.3(2). Please revise the maps accordingly to include this certification.

NECC Response: The map has been certified by a qualified registered professional engineer.

36. Proposed revised page 10 indicates the Golden Eagle fan site will be returned for use for mine ventilation. Since the fan site has been sealed, the disturbance area reclaimed and partially released, please provide the information required by Rule 2.05.3(3) for this facility, and provide a reclamation cost estimate for the closure of the fan site in accordance with Rule 2.05.4(2)(b).

- a. **NECC Response:** Plans for the Golden Eagle Fan site have been included on revised page 10. No disturbance at this site is proposed for this permit term.
- b. **DRMS Response:** The brief narrative included on revised page 10 does not provide the information required by Rule 2.05.3(3), nor does Map 11B provide the information required by this rule or specifications sufficient to demonstrate compliance with Rule 4.04. Please provide the information required by Rule 2.05.3(3) and information sufficient to demonstrate compliance with Rule 4.04, or revise page 1 and 10 of this permit section to commit to submitting and receiving approval of a Technical Revision with this information for the Golden Eagle Fan Site prior to reconstruction.

NECC Response: Page 10 of the PAP has been revised to indicate that the Golden Eagle Fan site may be used in the future but is not proposed for re-disturbance at this time.

- c. **DRMS Response:** Revised page 10 states reopening of the shafts will not require disturbance to vegetation already established during the afore-mentioned reclamation process. This does not appear possible, please explain how these facilities and associated structures will be reconstructed without re-affecting the Phase III release area of the Apache Air Shafts and the Phase II released

area of the Golden Eagle Fan Site, or revise page 10 to remove this statement.

NECC Response: Page 10 of the PAP has been revised to indicate that the Golden Eagle Fan site may be used in the future but is not proposed for re-disturbance at this time.

Rule 2.05.4 – Reclamation Plan

37. The Division recently conducted the required Midterm Review (MT8) for the New Elk Mine. Part of the review consisted of a review of the performance bond liability. The Division estimated the reclamation liability at the site to be \$5,206,046.00. The current required surety for the New Elk Mine is \$4,605,014.08, and the Division currently holds \$4,647,856.08 of bond in the form of corporate sureties. The estimated liability at the site based on the MT8 review is \$601,031.92 more than the current required surety, and is \$558,189.92 more than the current bond held for the site. The Division requests that NECC review the reclamation cost estimate that was attached to midterm review document. Please inform the Division if you concur with the liability estimate.

a. **NECC Response:** We will review and bond this as part of MT8 and not PR5.

b. **DRMS Response:** The Division cannot approve PR5 unless the applicant will submit the required performance bond in accordance with Rule 2.07.6(j). The MT8 review is complete, and DRMS had estimated the liability of the site using that estimate, however an updated PR5 cost estimate is enclosed. On September 30, 2021 NECC responded to DRMS' MT8 cost estimate and identified several concerns discussed below:

i. **NECC Item #1:** The increase in bond amount from \$4,605,014.08 (calculated as of December, 2018) to \$5,206,046.00 (calculated as of August, 2021) represents an increase of \$601,031.92 or 13.1% in the estimated bond amount required. This is well above the Bureau of Labor Statistics increase in PPI index for Construction Services of 8.09% over the same period of time.

1. **DRMS Response:** Each year DRMS updates the unit costs used in our cost estimating software CIRCES. In 2018, during the process of updating the unit costs, DRMS found the ownership and operating costs that we were using did not reflect accurate annual use hours for the equipment in the system. This error resulted in lower equipment costs. Once this error was identified, DRMS phased in the increased unit costs between 2018 and 2021. The cost increases noted by NECC are primarily a result of this issue as well as typical changes in costs that occur each year. In addition, the December 2018 cost estimate did not include \$438,418.00 in liability associated with the approval of technical revisions TR74 and TR75 approved in October of 2020.

NECC Response: We agree with the State's calculation, and we will revise the bond accordingly.

ii. **NECC Item #2:** For this reason, we would request additional explanation of the differences in the following task items in the calculation details:

1. **Item a:** Tasks 017 and 018 appear to be duplicates.

a. **DRMS Response:** An updated cost estimate addressing this discrepancy is enclosed. However, the MT8 cost for Task 030 did not populate correctly on the cost summary form and the hours estimated for the Job Superintendent were not accurate. Given this, the Division has revised the cost estimate and found the

revised liability to be \$5,218,954.00.

NECC Response: We agree with the State's calculation, and we will revise the bond accordingly.

2. **Item b:** Tasks 001 to 016 (Dozer work) increased by an average of 27%, which does not appear to be in line with our understanding of the actual cost increase based on the PPI index.

- a. **DRMS Response:** Please see the response to item #1 above.

NECC Response: We agree with the State's calculation, and we will revise the bond accordingly.

3. **Item c:** Tasks 019 to 027 (Truck work), 028 to 029 (Demolition work), 033 to 049 (Scraper work), and Tasks 058 to 063 (Ripper work) all had increases well above the amounts that would be expected based on the PPI index.

- a. **DRMS Response:** Please see the response to item #1 above.

NECC Response: We agree with the State's calculation, and we will revise the bond accordingly.

4. **Item d:** Task 031 (Plug and Seal Boreholes) increased by 93%.

- a. **DRMS Response:** Unfortunately, the error noted in 2018 regarding equipment costs resulted in a significantly lower costs for drill rigs during that time and were not reflective of accurate costs. This resulted in a significant increase in costs in 2021.

NECC Response: We agree with the State's calculation, and we will revise the bond accordingly.

5. **Item e:** Task 032 (Seal addition wells) increased by 74%.

- a. **DRMS Response:** See response to item #4 above.

NECC Response: We agree with the State's calculation, and we will revise the bond accordingly.

6. **Item f:** Task 051 (Mine Seal) increased by 50%.

- a. **DRMS Response:** These unit costs are provided by DRMS' Inactive Mine Program and are reflective of their costs.

NECC Response: We agree with the State's calculation, and we will revise the bond accordingly.

38. Once the cost estimate is finalized, please revised Exhibit 28 with the cost estimate. However, if you do not concur with the Division's estimate please provide a detailed estimate of the cost of reclamation of the proposed operations required to be covered by a performance bond with supporting calculation for the estimate for Exhibit 28. If the latter option is chosen, please provide this estimate as a revision to Exhibit 28.

- a. **NECC Response:** We will review and bond this as part of MT8 and not PR5.

- b. **DRMS Response:** The Division cannot approve PR5 unless the applicant will submit the required performance bond in accordance with Rule 2.07.6(j). Please review the updated PR5 cost estimate. If NECC does not concur with the Division's estimate please provide a detailed estimate of the cost of reclamation of the proposed operations required to be covered by a performance bond with supporting calculation for the estimate for Exhibit 28. If NECC concurs with the PR5 cost estimate, please provide this estimate as a revision to Exhibit 28.

NECC Response: We agree with the State's calculation, and we will revise the bond accordingly.

Rule 2.05.6 – Mitigation of Mining Operations

(3) Protection of hydrologic balance

40. Section 2.05.6(3) of the permit focuses on the protection of the hydrologic balance as it relates to mining in the Apache and Allen Seam. Please revise this section of the permit to account for the revised PR5 mining plan for mining in the Blue Seam.

a. **NECC Response:** Section 2.05.6(3) has been updated.

b. **DRMS Response:**

- i. NECC submitted revised pages 2.05-69 to 74. Proposed revised Page 69 does not include currently approved text in response to section 2.05.4(2)(h) or the Section Heading “2.05.5 Post-Mining Land Use” currently included on Page 69. Please revise as necessary.

NECC Response: Formatting of this section/page has been completed.

- ii. The section regarding mitigation of impacts of mining operations on fish and wildlife is missing a section heading in keeping with the formatting of the PAP. Please revise as necessary.

NECC Response: Formatting of this section/page has been completed.

- iii. Revised page 71, the second paragraph indicates mining may also occur in the Apache or Allen Seams where secondary coal recovery will occur. Please provide a mining plan map that depicts the proposed workings in these seams. Or, if mining in these seams is not proposed during this permit term, please revise the narrative of this page to indicate this and commit to revising the permit in the future prior to reinitiating mining in these seams.

NECC Response: Page 71 of section 2.05 has been revised to indicate that mining in the Apache or Allen Seams will occur in future permit terms and the PAP will be updated as that is proposed to occur.

- iv. Revised pages 71 through 74 have a subheading that notes the date of the revision is 9/22/2020 and that the page is revised with TR75. Please revise this page with an updated date and indicate the pages are revised with PR5.

NECC Response: Pages 71 through 74 have been updated to indicate the revision date for PR5.

c. **DRMS Response # 2:**

- i. Enclosed is a memorandum dated October 27, 2021 from Leigh Simmons with DRMS. Mr. Simmons conducted a review of PR5 to assess the proposed plan for compliance with Rule 2.05.6(3), please respond to the adequacy review issues identified in this memorandum.

NECC Response: We believe we have addressed all of Simmons comments in this response to comments and PR5.

DRMS (Simmons) Comment:

3. It is acknowledged in the introduction to the Probable Hydrologic Consequences (PHC) section of the currently approved PAP text that one of the factors that could impact the hydrologic balance of the area is subsidence. On page 2.05-71 the following text has been proposed to be added:

The mining method and extraction of coal will use room and pillar mining. For the Blue Seam no secondary or retreat mining is planned, and subsidence will not occur,

thus, no impacts to surface water resources or groundwater wells in the area of mining is anticipated.

The assertion that the proposed Blue Seam mining will not cause subsidence has not been supported. Although it is accepted that the subsidence impacts of room and pillar mining without retreat mining will be less than with retreat mining, it cannot be true that there is no potential for subsidence under any circumstance.

The currently approved text mentions a minimum depth of cover of 450 feet over the Apache Seam, but does not discuss the depth of cover over the Blue Seam. Based on a review of the revised maps (Map 3 Blue Mine Plan, Map 6A Sheet 5 Blue Seam Depth of Cover, and Map 7 Coal Seam Cross Sections), it appears that the depth of cover above the Blue Seam could be quite shallow, particularly at the point where the proposed workings cross beneath the Purgatoire River. For example, Map 7 shows a depth of cover of 91 feet at A-19, and 82 feet at NE-01-10.

DRMS (Simmons) Response: The potential for subsidence associated with the updated mine plan should be thoroughly evaluated, as is required by Rule 2.05.6(6). It is likely that this will involve an engineering study similar to the 2011 Agapito study found in Exhibit 24. The results of this study should be referenced when evaluating the PHC.

NECC Response: NECC has completed an Analysis of Multiple Seam Stress Distribution and Pillar Stability study (included in Exhibit 24_3).

DRMS (Simmons) Comment:

4. Also on page 2.05-71, the currently approved PAP text contains a paragraph beginning:

Well records from CDWR indicate that there are 19 permitted wells in the Raton Formation within a one mile radius of the permit boundary...

The text goes on to refer to Exhibit 8(4), which contains a 2011 report produced by Whetstone Associates. No revisions to the currently approved text or to Exhibit 8(4) have been proposed.

The Whetstone report was produced to examine the probable hydrologic impacts of an earlier revision to the mine plan (room and pillar mining in the Allen and Apache seams to the south and east of the previously approved mine plan), and forms the basis of the currently approved analysis of the probable hydrologic consequences of mining.

It is not reasonable to suppose that such a significant change to the mine plan as is proposed with PR-5 could be approved without a similarly detailed analysis

DRMS (Simmons) Response: A thorough analysis should be made of the Probable Hydrologic Consequences of the mine plan proposed with PR-5, as is required by Rule 2.05.6(3). It is likely that this will involve a study similar to the 2011 Whetstone study found in Exhibit 8(4). The PAP text should be updated with reference to the study.

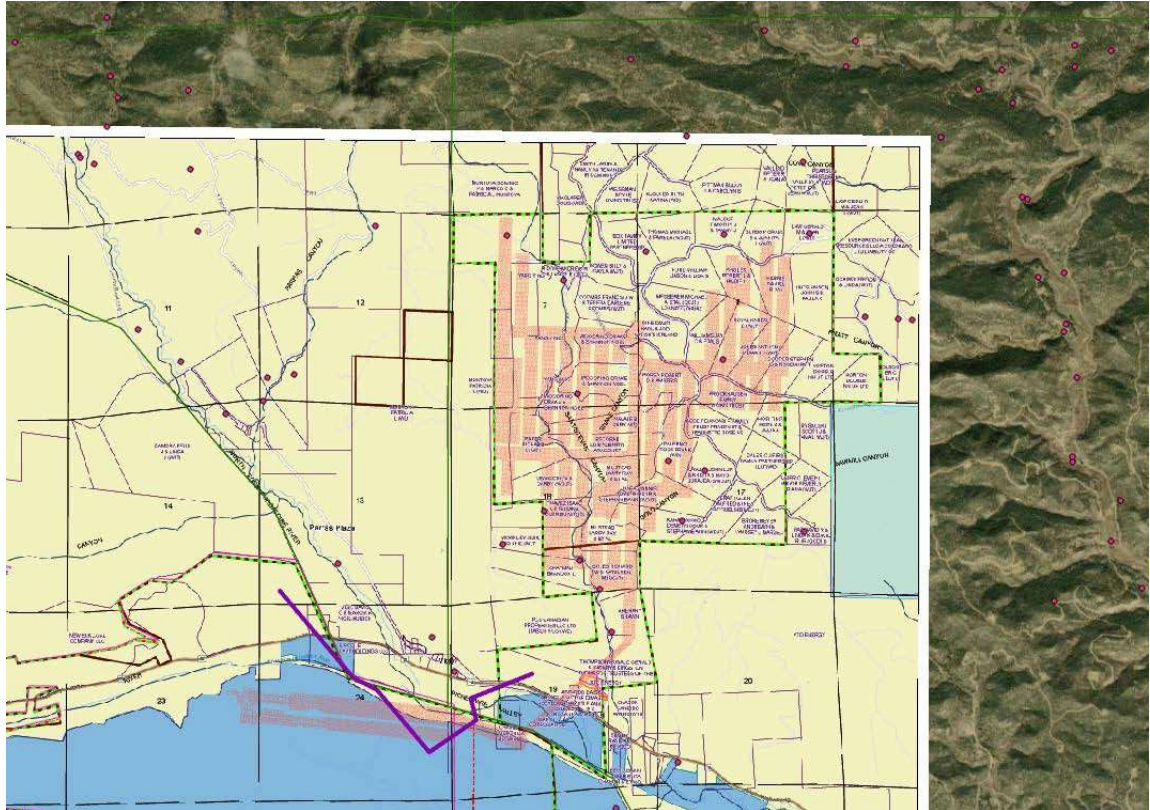
NECC Response: As required by Rule 2.05.6(3), the PHC has been updated for the mine plan proposed with PR5.

DRMS (Simmons) Comment:

5. The hydrologic monitoring plan is presented on pages 2.05-104 through -110 of the PAP.

The currently approved plan was appropriate for the New Elk mine prior to PR-5, while it was inactive; it is not appropriate for an active mine, or for the mine plan proposed with PR-5.

DRMS (Simmons) Response: Please review and update the hydrologic monitoring plan, in accordance with the performance standards given in Rule 4.05.13. Please also propose locations for Groundwater Points of Compliance as appropriate. It may be helpful to refer to the Division's Groundwater Monitoring and Protection Technical Bulletin for guidance; the technical bulletin is available from the DRMS website: <https://drms.colorado.gov/>



[programs/coal-regulatory-program/coal-program-guidelines-and-technical-documents/technical](https://drms.colorado.gov/programs/coal-regulatory-program/coal-program-guidelines-and-technical-documents/technical)

Figure 1: Screenshot showing records of constructed wells from DWR database with permit category "Residential" (pink dots) overlaid on proposed Map 1 and satellite image

NECC Response: Prior to mining NECC will install POC wells on the north end of the PR5 area. This will include a nest of wells for the overburden and underburden coal. NECC requests this stipulation be put in place.

(4) Protection of parks and historic places

41. As discussed above, the SHPO has recommended a class III cultural resource inventory be conducted for the proposed affected area associated with mining in the Blue Seam resulting from subsidence, vibration, and potential surface facilities needed to support mining. The Division acknowledges that no such surface facilities are proposed with PR5 but would note that if additional surface facilities are needed to support mining in the future, appropriate revisions to the permit will be required. Based on the results of the class III cultural resource survey, please provide an update to section 2.05.6(4) of the permit if necessary. If

NECC believes the survey is unnecessary, please provide a detailed justification for this.

- a. **NECC Response:** Section 2.05.6 has been revised to include mining method and extraction of coal. With room and pillar mining and no proposed secondary mining, subsidence will not occur. As a result, NECC requests that a class III cultural resource inventory of the PR5 not be required.
- b. **DRMS Response:** Please see the response to adequacy review item #42 below. Section 2.05.6(6) of the PAP was not updated with PR5 and NECC will need to revise this section of the permit for the proposed change in the mine plan. As this subsidence survey, monitoring and control adequacy item relates to the cultural resource survey, please provide a detailed analysis demonstrating mining in the blue seam will not result in surface subsidence.

NECC Response: NECC has completed an Analysis of Multiple Seam Stress Distribution and Pillar Stability study (included in Exhibit 24_3).

(6) Subsidence Survey, Subsidence Monitoring, and Subsidence Control

42. The current approved mining plan proposes retreat mining; however, the PR5 cover letter indicates that no secondary mining (retreat mining) will occur. Please clarify and specifically commit to the mining method chosen. Please revise Section 2.05.6(6) of the permit to account for the revised mining plan proposed with PR5. This section must be revised and address all of the requirements of Rule 2.05.6(6) and must comply with the performance standards of Rule 4.20. Please update the Map 20 series, Map 11, Map 12, Exhibit 8, Exhibit 24, Exhibit 42, Table 19, and any other applicable information in the PAP as necessary. The cover letter for PR5 indicates subsidence is not expected since no secondary mining will occur, please provide a demonstration this assumption is correct specific for the Blue Seam.

- a. **NECC Response:** Section 2.05.6(6) has been revised to indicate that mining in the Blue Seam will include only room and pillar mining with no secondary recovery. As a result, no subsidence will occur. The referenced sections of the PAP have been revised accordingly.
- b. **DRMS Response:**
 - i. Section 2.05.6(6) of the PAP was not updated with PR5 or the adequacy response, and NECC will need to revise this section of the permit for the proposed change in the mine plan. Simply stating that no secondary extraction will occur and therefore subsidence will not occur is not adequate. Exhibit 24 is designed based on a previously approved mine plan submitted with TR58 and needs to be revised based on NECC proposed PR5 mine plan and NECC methods of mining. Exhibit 42 needs to be updated. The revised subsidence survey, monitoring and control plan must comply with Rule 2.05.6(6), since NECC is asserting that no subsidence will occur based on the PR5 mine plan, please provide a technical analysis/demonstration to substantiate this.

NECC Response: NECC has completed an Analysis of Multiple Seam Stress Distribution and Pillar Stability study (included in Exhibit 24_3).

- ii. The information provided in the adequacy responses does not include any new information regarding the development mining underneath the Purgatoire River. The existing information in the PAP only covers the previously mined coal seams and does not account for the Blue Seam. The Blue Seam is roughly 250-300 above the Apache Seam. New information regarding undermining the Purgatoire River in the Blue Seam needs to be addressed and included. This should include depth of the Blue Seam from the Purgatoire River in the areas planned to be over the mining areas. As well as, if/what type of measures

taken to prevent impacts to the hydrologic balance.

NECC Response: NECC will submit a plan at least three months prior to any mining underneath the Purgatoire River. The plan will include all information mentioned above, all safety precautions, and the measures taken to prevent impact to the hydrologic balance. This plan is required by MSHA before mining within 300 feet of a body of water. NECC requests this stipulation be put in place.

- iii. Regarding the Map 20 series maps, these maps must be certified by a qualified registered professional engineer or professional geologist, with assistance from experts in related fields such as land surveying and landscape architecture in accordance with Rule 2.10.3(2). Please revise the maps accordingly to include this certification.

NECC Response: Maps have been certified by a qualified registered professional engineer or professional geologist.

The Division received proof of publication of the notice required by Rule 2.07.3(2) for the PR5 application. The last date of newspaper publication was August 4, 2021. The public comment period closed on September 3, 2021, thirty days after the last date of newspaper publication. The Division is required to issue a decision on the application by November 4, 2021. If you need additional time to address the Division's adequacy review please request an extension of the decision date. If the decision date arrives and there are outstanding adequacy review items, the Division will issue a proposed decision to deny the application.

If you have any question, please do not hesitate to contact me at Jared.Ebert@state.co.us or at (303) 866-3567 extension 8120.

Sincerely,



Jared Ebert
Senior Environmental Protection Specialist

Enclosure: 1.) AVS Evaluation Report, October 15, 2021, New Elk Coal Company
 2.) Reclamation Cost Estimate for the New Elk Mine, C-1981-010, PR5, Dated 10/29/2021
 3.) Interoffice Memorandum, Leigh Simmons DRMS, October 27, 2021

EC: Nick Mason, New Elk Coal Company, LLC. nmason@newelkcoal.com